



Office of the CTO Roadmap

David Conrad | MSSI Retreat | 17 January 2017

Introduction

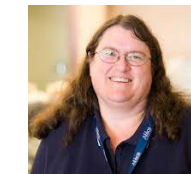
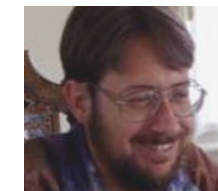
- OCTO: Office of the CTO
 - Any resemblance to a children’s cartoon entirely unintentional
 - Four departments:
 - Research
 - SSR
 - Technical Engagement
 - Administration



To **constantly improve knowledge** about the identifiers ICANN helps coordinate; to **disseminate this information** to the Internet community; to **improve the technical operation** of the Internet's system of unique identifiers within ICANN's limited remit; and to **improve the technological stature** of ICANN, both the organization and the community.

The Team (as of 17 Jan 2017)

- David Conrad (CTO)
 - Cathy Petersen (Exec Assistant) – Cat Herding
 - Tracy-Ann Myrie (Admin Assistant) – Cat Herding
- Matt Larson (VP, Research)
 - Roy Arends - DNS & DNSSEC
 - Alain Durand - Network Numbers & IETF
 - Paul Hoffman - DNS, cryptography, & testing
 - Ed Lewis - DNS, DNSSEC & Related protocols
- John Crain (CSSRO)
 - Carlos Alvarez - SSR Technical Engagement
 - Richard Lamb - DNSSEC Program Manager
 - Dave Piscitello - Security & ICT Coordinator
- Adiel Akplogan (VP, Technical Engagement)
- Steve Conte (Director of OCTO Programs)
 - Barbara Roseman – Special Projects Coordinator



FY17 ROADMAP

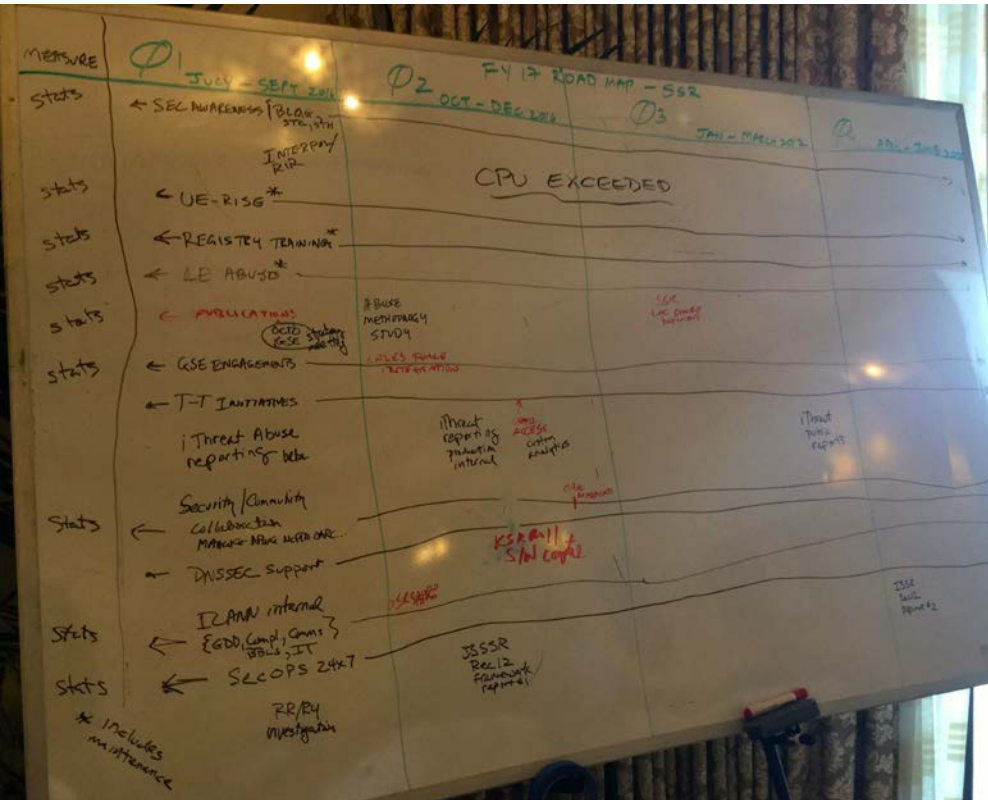
Q1 JULY - SEPT '16	Q2 OCT. - DEC '16	Q3 JAN - MARCH '17	Q4 APRIL - JUNE '17
KSK-OPS PLAN public KSR-REQS 30 DAY REACTIVE TEST TOOL KSK TESTS IN MIDDLEBOX TRAFFIC ANALYSIS system Middlebox lab expansion (all 4 quarters) ITHI/ICANN kick off ITHI/Name workshop IPv6/SDP paper/blog 6761-dl 4 quarters Authoritative server analysis - RA IPv6 Compliance measurement - Publication of data - Internal IPv6 Compliance assessment → Publication of outcome - Review of IPv6 Requirement in RA	ICANN Forum Start collecting available TLD zones ITHI/ICANN - problem statement 1st segment workshop presentations at RIR meeting Eggs/Biry Publish and act some action	ITHI/ICANN - update definition ITHI/Data collection IPv6 measurement update { IPv4 market update { Whois accuracy Integrated ICANN Statistics Portal (data visualisation)	New middlebox lab to LA data publicly measurements Perform a miracle Registration at RIRs

- KSK Rollover
- DNS Traffic Analysis
- Middlebox Testing
- Authoritative Server Testing
- ITHI
- IPv6 Support Analysis

FY17 Research Agenda

- DNSSEC
 - Validator behavior and identification, operational demographics
- Identifier Technologies Health Indicators
 - Domain names, numbering resources, protocol parameters
- Numbering Resources
 - IPv6 GDP per-capita, IPv6 Measurement, IPv4 Marketplace, Numbering whois vs. BGP database
- Names
 - Domain Name definition and clarification, Special use domain registry improvement
- DNS Traffic Analysis
 - Root server traffic, L-root single location
- DNS Operations and Infrastructure
 - Authoritative server behavior, middlebox DNS behavior
- Domain Registration System
 - RDAP TLD pilot server
- Data
 - Open Data Pilot

Security, Stability, Resiliency FY17



- Security Awareness Engagement
- DNS Abuse “Scoreboard”
- DNSSEC Support
- Security Operations

Technical Engagement FY17

Purpose: Coordination of processes and relationships

- Built in cooperation with the **community at large**
- Develop, sustain and promote ICANN technical reputation
- Share technical information with our stakeholders.

Build relationships through:

- *Publications*
- *Presentations of technical research*
- *Participation in Internet protocol development and operational forums*
- *Technical partnerships*
- *Strengthening engagement with the operational community (I*).*

Mission

Promote ICANN as a neutral, reliable and authoritative source for technical information/data on the Internet system of unique identifiers that it helps coordinate.

OCTO Administration

- Training and Event Coordination
 - SSR Capacity Building
 - “How it Works”
 - “Brown Bags”
 - “iExpert”
 - Technical Experts Group
- Liaison between OCTO and other internal departments

Research

- Understanding the behaviors of Internet's system of unique identifiers
- Exploring future path of Internet's system of unique identifiers

SSR

- Investigating abuse of the Internet's system of unique identifiers
- Mitigating abuse of the Internet's system of unique identifiers (within remit)

Questions?

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